

AMENDMENTS TO THE CLAIMS

1-50. (Canceled)

51. (Currently Amended) A method for managing a defective unit on a recording medium, the recording medium including a first management area being a temporary management area, a second management area and a data area, the data area having a spare area, the method comprising:

(a) writing data written in the defective unit onto a replacement unit in the spare area if the defective unit is detected within the data area;

(b) writing first management information and second management information onto the first management area, the first management information including a location of at least the defective unit and the replacement unit, and the second management information including a location of the first management information;

(c) updating the first and second management information based on the steps (a) and (b) until the recording medium is to be finalized; and

(d) writing, at finalization of the recording medium where data recording to the recording medium is not permitted after the finalization of the recording medium, the updated first and second management information written in the first management area onto the second management area, wherein during the writing step (d) the updated second management information is modified to include a location of the first management information written in the second management area,

wherein the first management area being the temporary management area is located in a lead-in area of the recording medium.

52 -54. (Canceled)

55. (Currently Amended) An Apparatus for managing a defective unit on a recording medium, the recording medium including a first management area being a temporary

management area, a second management area and a data area having a spare area, the apparatus comprising:

an optical pickup configured to write/read data to/from the recording medium;

a servo unit configured to control the pickup to maintain a distance between the pickup and the recording medium; and

a controller configured to control the servo unit and pickup to write data written in the defective unit onto a replacement unit in the spare area if the defective unit is detected within the data area, and to write first management information including a location of at least the defective unit and the replacement unit and second management information including a location of the first management information onto the first management area,

wherein the controller updates the first and second management information until the recording medium is to be finalized, and writes the updated first and second management information written in the first management area onto the second management area at finalization of the recording medium where data recording to the recording medium is not permitted after the finalization of the recording medium,

wherein the updated second management information is modified to include a location of the first management information written in the second management area, and

wherein the first management area being the temporary management area is located in a lead-in area of the recording medium.

56. (Canceled)

57. (Currently Amended) A recording medium, comprising:

at least one recording layer including a lead-in area, a data area and a lead-out area, the data area including at least one spare area, the spare area allocated on an inner and/or outer portion of the data area for replacement-writing data written in a defective unit of the data area onto a replacement unit in the spare area;

at least one first management area being a temporary management area allocated within the lead-in area ~~data area and/or outside of the data area~~ for temporarily writing first management

information and second management information, the first management information including a location of at least the defective unit and replacement unit and second management information including a location of the first management information, wherein the first and second management information is updated in the first management area until the recording medium is to be finalized; and

at least one second management area allocated outside of the data area,

wherein the last updated first and second management information written in the first management area is written in the second management area at finalization of the recording medium where data recording to the recording medium is not permitted after the finalization of the recording medium, and the updated second management information is modified to include a location of the first management information written in the second management area.

58-62. (Canceled)

63. (Currently Amended) A write-once recording medium, comprising:

at least one recording layer including a lead-in area, a data area and a lead-out area, the data area including at least one spare area having a replacement unit, the spare area allocated on an inner and/or outer portion of the data area for replacement-writing data written in a defective unit of the data area onto the replacement unit;

at least one temporary defect management area (TDMA) allocated within the lead-in area ~~at a data area and/or outside of the data area~~ for writing temporary defect list (TDFL) pertaining to the defective unit and writing temporary disc definition structure (TDDS) including information indicating a location of the temporary defect list (TDFL); and

at least one defect management area (DMA) allocated in the lead-in area and/or the lead-out area for writing therein last written TDFL and TDDS from the TDMA as a defect list (DFL) and a disc definition structure (DDS) respectively when the write-once recording medium is to be finalized, wherein the DDS is modified to include a location of the DFL instead of the location of the TDFL, and data recording to the write-once recording medium is not permitted after the finalization of the write-once recording medium.

64. (Previously Presented) The write-once recording medium as claimed in claim 63, wherein the write-once recording medium is finalized when a user data area of the data area is full.

65. (New) The method as claimed in claim 51, wherein the writing step (d) is performed only at the finalization of the recording medium.

66. (New) The method as claimed in claim 51, wherein the second management area is also located in the lead-in area of the recording medium.

67. (New) The apparatus as claimed in claim 55, wherein the controller writes the updated first and second management information written in the first management area onto the second management area only at the finalization of the recording medium.

68. (New) The apparatus as claimed in claim 55, wherein the second management area is also located in the lead-in area of the recording medium.

69. (New) The recording medium as claimed in claim 57, wherein the last updated first and second management information written in the first management area is written in the second management area only at the finalization of the recording medium.

70. (New) The recording medium as claimed in claim 57, wherein the second management area is also located in the lead-in area of the recording medium.

71. (New) The write-once recording medium as claimed in claim 63, wherein the last written TDFL and TDDS from the TDMA are transferred and written into the DMA as the DFL and DDS respectively, only at the finalization of the write-once recording medium.